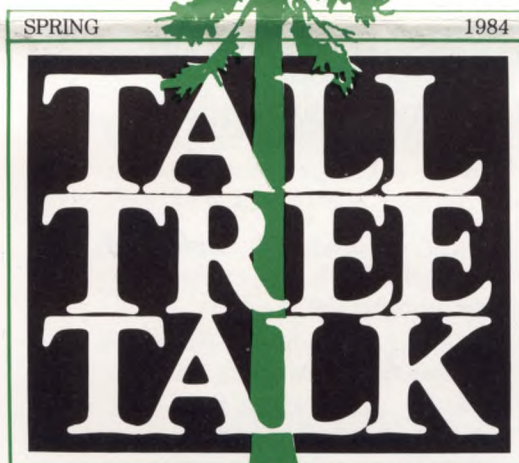


## **Tall Tree Systems Pioneers in megamemory for the IBM PC Market**

Tall Tree Systems provides the largest memory and most powerful software for the IBM PC, XT and compatible machines. All of our products add an extra dimension to your system. Each new product builds upon the last, creating a symbiotic relationship. This offers you the megamemory, speed, and flexibility available nowhere else. We build-in the capability to grow to meet your system requirements. The first with the finest, Tall Tree Systems pioneered the 512K add on memory board in 1981, and we are widely respected as specialists in the field. Software excellence and hardware reliability are the hallmarks of Tall Tree Systems.



**MEGAMEMORY  
SPEED  
FLEXIBILITY  
VERSATILITY  
COMPATIBILITY**

### **MEGAMEMORY—EMERGING TRENDS IN SOFTWARE**

As the cost of memory continues to drop, many companies are developing software specifically designed for use on computers with great RAM power. Lotus 1-2-3 is currently the most popular spreadsheet program, largely because it is the first to tap the power of big memory. Lotus has just announced Symphony, a powerful new product that requires 320K just to run the program. With JRAM-2 you will have the memory capacity to take advantage of all the new and more powerful software packages as they become available. With the JRAM family of memory boards, you have virtually unlimited capacity for memory expansion. Grow as you go with Tall Tree Systems.

## **INTRODUCING THE JRAM-2 THE MOST POWERFUL MULTI-FUNCTION BOARD ON THE MARKET TODAY**

### **FEATURES & BENEFITS**

- **MODULAR I/O PORTS—PURCHASE ONLY WHAT YOU NEED NOW**
- **NEWEST CONNECTOR TECHNOLOGY—NO INTERNAL CABLES**
- **LARGEST MEMORY AVAILABLE—16 MEGABYTES PER SYSTEM**
- **MOST POWERFUL SYSTEMS SOFTWARE—JETDRIVE AND JSPOOL**
- **MONEY SAVING OPTIONS—USE YOUR OWN MEMORY CHIPS**



# JRAM-2 THE MOST POWERFUL MULTI-FUNCTION BOARD AVAILABLE!

The JRAM-2 couples all of the most popular I/O functions — serial ports, parallel ports and a clock/calendar — with Tall Tree's added dimensions—big memory and first class software. Using both the 64K and 256K chips, the JRAM-2 has a memory capacity ranging from 512K to 2 Megabytes—in one slot! The JRAM-2 includes JETDRIVE and JSPOOL—the finest RAM disk and printspooling software in the industry—at no extra charge.

## THE NEWEST AND FINEST CONNECTOR TECHNOLOGY

**More efficient, more convenient, and more reliable I/O connectors**

The JRAM-2 consists of a main circuit board, containing all the memory logic, and an I/O card with the Serial Port, Parallel Port and Clock functions. The entire package fits easily into a single slot. The JRAM-2 I/O ports plug directly into the main JRAM-2 board. Your printer and modem can then plug into the board, whose ports are easily accessible at the back of the chassis. This connecting method eliminates the need for cumbersome ribbon cables which can cause radio frequency interference and often require an extra slot. Installing printers and modems is far easier with this type of connector technology.

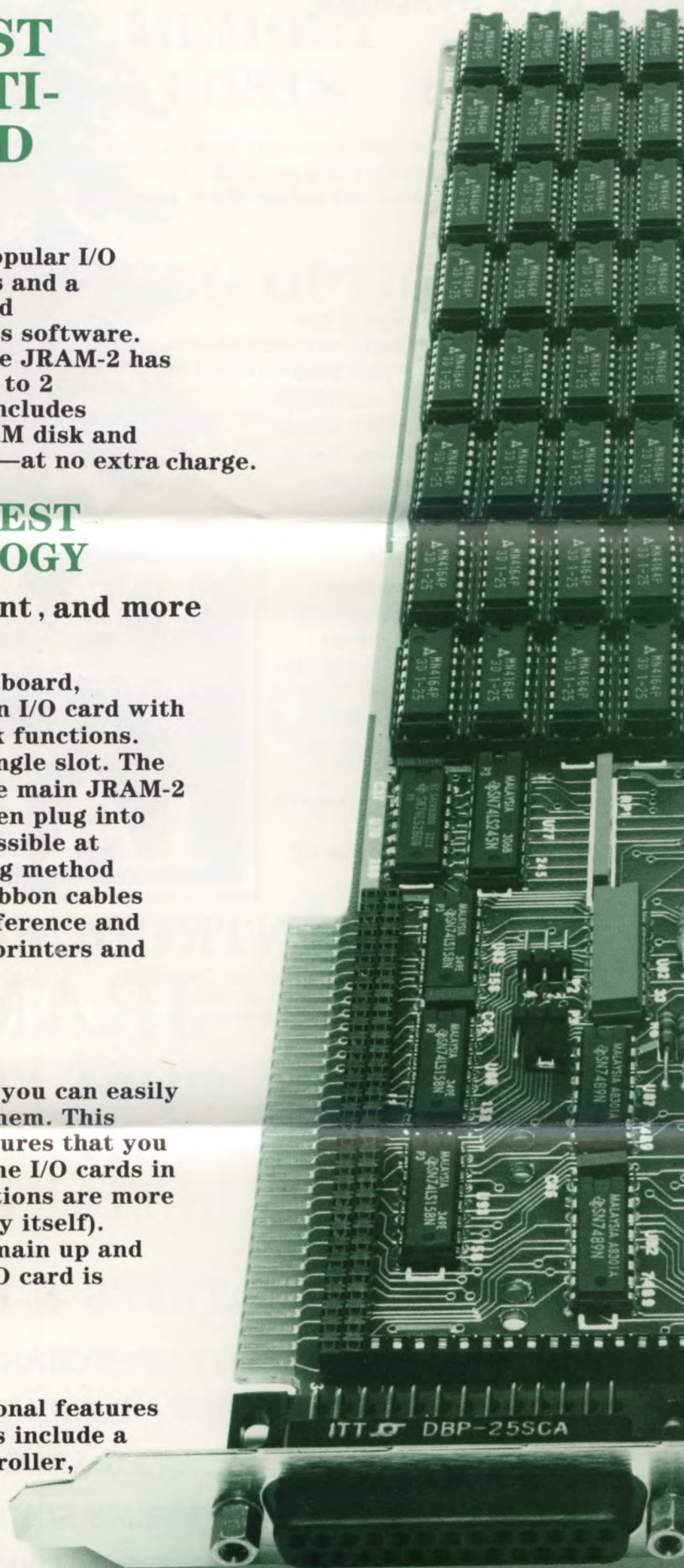
### Modular I/O Functions

The JRAM-2 I/O ports are modular, so you can easily add additional functions as you need them. This allows you to purchase only those features that you need right now. You can also change the I/O cards in the event that one burns out (I/O functions are more vulnerable to breakdowns than memory itself). Modular I/O functions allow you to remain up and running with full memory while the I/O card is returned for replacement.

### Future adaptor boards

With JRAM-2's modular design, additional features are easily added. Future plug-in boards include a graphics display board, a diskette controller, and a hard disk adaptor.

**PRICES** \$219. JRAM-2  
\$299. JRAM-2 with CLOCK  
\$399. JRAM-2 with CLOCK,  
SERIAL PORT & PARALLEL PORT







# THE NEWEST MEGAMEMORY TECHNOLOGY

## 256K/64K chip compatibility

The JRAM-2, using both the 64K and the new 256K chips, has a memory capacity ranging from 512K all the way up to 2 Megabytes in a single slot! Buy the JRAM-2 with the 64K chips and you will have the most powerful memory board on the market. Add 256K chips and you will have a 2 Megabyte multi-function card!

## 16 Megabyte system capacity now, 64 MB in the near future

The JRAM-2 includes hardware that allows you to add up to eight boards to a single system—16 Megabytes to power your PC! The JRAM-2 will also be compatible with the JJRAM SIMM board, with its awesome capacity of 8 Megabytes per board. With the JJRAM SIMM board, you will be able to create a 64 Megabyte microcomputer system!

## SOFTWARE EXCELLENCE AND COMPATIBILITY!

### JETDRIVE and JSPOOL—the finest systems software included

JETDRIVE and JSPOOL, by far the most powerful, most sophisticated, and most flexible systems software on the market, are included with the JRAM-2 board at no extra charge.

JETDRIVE is the only RAM disk that allows you to reboot (warm boot) the computer without losing the contents of the electronic disk.

JETDRIVE also includes a high speed file transfer routine that is 10 times faster than the DOS copy command, and 5 times faster than the DOS backup and restore.

JSPOOL allows you to select from 7 different printers, adjust the printing rate to accommodate your particular needs, create a printing buffer in the electronic disk, plus 22 powerful special commands to enhance the performance of your machine.

### Tall Tree Systems— At the forefront of new operating systems

In addition to being compatible with PC-DOS, the most popular operating system for microcomputers, the JRAM-2 is also compatible with NCI's PASCAL & UNIX, as well as Concurrent CP/M.



# EXPAND YOUR MEMORY REDUCE YOUR COSTS

Memory is the most expensive part of an add-on board—often 75% of the total cost of the board. Most manufacturers mark up the RAM sold on their boards 30 to 100%. Helping you reduce your RAM costs, Tall Tree Systems is now offering an outstanding money-saving RAM option for your memory boards.

## NEW MONEY—SAVING OPTION

Order our memory boards without any RAM. We will provide boards that you can fill with your own RAM. We carefully test each board with a 24 hour "burn-in" before you receive it. Since many malfunctions on a memory board are due to the improper insertion of memory, we are only able to warrant unpopulated cards for 30 days instead of our usual one year warranty.

*We invite you  
to join us at the  
Computer Faire!*



Seated left to right: John Henderson, John Sweeney, Kirt Minor, Terry Lesser; Standing left to right: Gary Bacon, Karen Hydo, Gary Embler, David Kao, Hugh Medonald (not pictured)

THE 9TH WEST COAST  
**COMPUTERFAIRE**

March 22–25, 1984

SAN FRANCISCO

Civic Auditorium and Brooks Hall

SEE US AT BOOTH #103

## PROGRAM UPDATES

JFORMAT-2, current version 2.10, has been improved with a simpler installation section and new, easier-to-understand documentation.

JSPool, current version 2.07, supports a variety of printers, both serial and parallel, and provides you with over 20 powerful special commands.

WINDRIVE, current version 1.08, now supports the following hard disk systems:

KONAN—MAYNARD—VRDATA—DAVONG—XT—DATAMAC  
and any drive using these disk controllers:  
DTC5150—QCS—WESTERN DIGITAL—XEBC

WINDRIVE PROGRAM UPDATE—For XT only: If you would like to use more than one hard disk on your XT, you need to patch the WIN program (Version 1.08).

Patch:

```
A  DEBUG WXT.BIN
   -E178B[ENTER]
   -XXXX:178B 77.EB[ENTER]
   -W ENTER
   -Q ENTER
```

LABEL.COM (the program included with the WINDRIVE and JFORMAT-2 packages) can only be used once per diskette or hard disk. Once you have labeled a disk(ette) you will not be able to change it. DOS 2.00 and 2.10 have a bug in them that makes it dangerous to change volume labels. To avoid destroying arbitrary files (due to the bug) we have modified the LABEL.COM program to automatically abort if there is a pre-existing label on a volume.

JETDRIVE, current version 2.40, now allows the use of wild cards to "split" large files between several diskettes. This feature is extremely useful for backing up a hard disk.

JET.COM has a logic problem that causes the /S and /D commands to fail if you happen to be transferring large numbers of very small files. To fix this problem, use one of the patches below (match the patch to your version of the software.)

Version 2.22

```
A  DEBUG JET.COM [ENTER]
   -E15B [ENTER]
   -XXXX:015B 32.33 [ENTER]
   -E92B [ENTER]
   -XXXX:092B DC.11 01.11 [ENTER]
   -E1940 [ENTER]
   -XXXX: 1940 00.31 00.C0 00.A3 00.3A 00.1A 00.A3 00.3C
   00.1A 00.E9 00.BD 00.F0 [ENTER]
   -W [ENTER]
   -Q [ENTER]
```

Version 2.30

```
A  DEBUG JET.COM [ENTER]
   -E9DE [ENTER]
   -XXXX:09DE E7.60 01.0F [ENTER]
   -E15B [ENTER]
   -XXXX:015B 31.32 [ENTER]
   -E1940 [ENTER]
   -XXXX:1940 00.31 00.C0 00.A3 00.3A 00.1A 00.A3 00.3C
   00.1A 00.E9 00.97 00.F1 [ENTER]
   -W [ENTER]
   -Q [ENTER]
```

**TALL TREE SYSTEMS—PROVIDING THE BIGGEST MEMORY AND  
THE FINEST SOFTWARE FOR PC AND COMPATIBLES SINCE 1982**